

**In the claims:**

- 1-21. (cancelled)
22. (previously presented) A composition comprising a purified non-naturally-occurring pol-I type DNA polymerase, or fragments thereof, capable of DNA synthetic activity, said polymerase derived from *Thermotoga neapolitana*.
23. (previously presented) A composition comprising a mutant pol-I type DNA polymerase, said mutant polymerase derived from a *Thermotoga neapolitana* DNA polymerase.
24. (previously presented) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation that reduces a 3'-5' exonuclease activity of said DNA polymerase.
25. (previously presented) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation that reduces a 5'-3' exonuclease activity of said DNA polymerase.
26. (previously presented) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation resulting in said DNA polymerase having reduced discrimination against dideoxynucleotides.
27. (previously presented) The mutant DNA polymerase of Claim 23, wherein said mutant DNA polymerase comprises one or more amino acid substitutions.
28. (previously presented) The mutant DNA polymerase of Claim 23, wherein said mutant DNA polymerase comprises one or more amino acid deletions.
29. (previously presented) The composition of Claim 23, wherein said mutant DNA polymerase is devoid of an N-terminal 5'-3' exonuclease domain.

30. (previously presented) The composition of Claim 23, wherein said mutant DNA polymerase is devoid of the 283 N-terminal amino acids of native *Thermotoga neapolitana* DNA polymerase.

31-39. (cancelled)

40. (previously presented) A mutant *Thermotoga neapolitana* DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase, wherein said mutation is in the 3'-5' exonuclease domain of said polymerase, and further wherein said mutant *Thermotoga neapolitana* DNA polymerase is a Pol I-type DNA polymerase.

41.-43. (cancelled)

44. (previously presented) A mutant *Thermotoga neapolitana* DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is in the 5'-3' exonuclease domain of said polymerase, and further wherein said mutant *Thermotoga neapolitana* DNA polymerase is a Pol I-type DNA polymerase.

45.-47. (cancelled)

48. (currently amended) ~~[[The]]~~ A mutant *Thermotoga neapolitana* DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase of Claim 44, wherein said mutation is a deletion of the 283 N-terminal amino acids of native *Thermotoga neapolitana* DNA polymerase.

49. (currently amended) ~~[[The]]~~ A mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase ~~of Claim 40~~, wherein said mutation is a Asp to Ala substitution at position 323 of said DNA polymerase.

50. (new) A mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity, wherein said mutation is a deletion of the 297 N-terminal amino acids of native Thermotoga neapolitana DNA polymerase.

51. (new) A mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is a deletion of the N-terminal 5'-3' exonuclease domain of native Thermotoga neapolitana DNA polymerase.